

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID SAMUEL COHEN, YIH FAR CHEN,
LYNN KIM and CHIH-HSIN SHIH

Appeal 2006-2801
Application 09/989,684
Technology Center 1700

Decided: March 20, 2007

Before CHUNG K. PAK, CATHERINE Q. TIMM, and
JEFFREY T. SMITH, *Administrative Patent Judges*.

JEFFREY T. SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 9, 12, 15-31, 77, and 78. We have jurisdiction under 35 U.S.C. § 6.

Appellants' invention is directed to an optical disc for separating disperse particles from particle agglutinants. Representative claim 77, as presented in the Brief, is reproduced below:

77. An optical disc for separating disperse particles from particle agglutinants, comprising:

a plurality of tracks disposed on an outer periphery of the optical disc;

a main chamber disposed between at least a portion of the plurality of tracks and a light detector, the main chamber comprising:

an entry chamber configured to accept a sample; and

a separation structure comprising solid components spaced apart to form gaps, the gaps being large enough to allow disperse particles to change position relative to the center of the disc by passing through the separation structure, the gaps being too small to allow particle agglutinants to pass through the separation structure;

wherein a quantity of disperse particles may be determined by using the light detector to count a number of the plurality of tracks that are covered by the disperse particles.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Virtanen

US 6,030,581

Feb. 29, 2000

The Examiner has entered the following grounds of rejection:

I. Claims 9, 12, 25-31, 77, and 78 are rejected under 35 U.S.C. § 102(b) as being anticipated by Virtanen.

II. Claims 15-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Virtanen.

ISSUE

The Examiner contends that Virtanen describes optical discs adapted to be read by an optical reader that anticipate the claimed invention. The Examiner contends that Virtanen discloses that an analyte binds to predetermined locations on the optical disc and that the analyte is detected by the optical reader (Answer 4).

Appellants contend that Virtanen does not teach or suggest quantifying particles as required in claim 77. Appellants further contend that Virtanen does not teach or suggest an optical disc wherein particle agglutinants may be quantified by determining the amount of the tracking grooves that are at least partially covered by particle agglutinants as specified in claims 9 and 78 (Br 9-10).

The issue before us is whether Appellants have shown that the Examiner erred in rejecting claims 9, 12, 25-31, 77, and 78 under 35 U.S.C. § 102(b). This issue turns on whether the Examiner has established a reasonable belief that the property or characteristic recited in the claims would have been inherent to the product of Virtanen, and, if the Examiner met his initial burden, whether the Appellants have adequately rebutted the Examiner's position by showing that the characteristic or property is not possessed in the cited reference. Specifically, the issue is: Does the optical disc described in the prior art contain areas where agglutinants can be determined through the use of optical readers? We answer this question in the affirmative.

FACTS

Appellants invented an optical disc that is responsive to centrifugal forces resulting from rotation of the disc. The disc is structured to allow interrogating light to be reflected from or transmitted past the agglomeration of particles to allow detection (Specification 2, ll. 17-27).

Virtanen describes an optical disc adapted to be read by an optical reader comprising a sector for localizing an analyte suspected of being in a sample (col. 2, ll. 13-20). Virtanen discloses a sector comprises control information for conducting assay and analyte location information (col. 2, ll. 49-59). Virtanen discloses the assay site may contain capillary channels (col. 12, ll. 29-33). Virtanen discloses an assay element suitable for detection of particles (col. 13, ll. 14-18).

PRINCIPLES OF LAW

A claimed invention is anticipated under 35 U.S.C. § 102 when all of the elements of the claimed invention are found in one reference. *See Scripps Clinic & Research Found. V. Genentech Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). The prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently. *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1433 (Fed. Cir. 1997).

ANALYSIS

Virtanen describes an optical disc adapted to be read by an optical reader comprising an assay site containing capillary channels for determining the presence of particles. An assay of a sample is used for

analysis to determine the presence, absence, or quantity of one or more components in the sample. Virtanen discloses the presence of capillary channels in the assay site. Thus, we determine that the Examiner has a reasonable basis to believe that Virtanen teaches an optical disc capable of quantifying particle agglutinants by determining the amount of the tracking grooves that are at least partially covered by particle agglutinants.

Appellants have not adequately rebutted the Examiner's position that Virtanen's optical disc possesses the claimed functional characteristics. Appellants have not addressed the presence of these capillary channels (tracks) in the assay site of Virtanen. Appellants have also not addressed how the optical reader described by Virtanen that operates to measure the presence of the components in the assay on the optical disc differs from the claimed invention (which indicates that the capillary channels were used to determine the properties of the assay). As such, it is apparent that the optical disc of Virtanen (containing capillary channels), would have the same functional property argued by Appellants. Thus, for the reasons presented in this decision and those presented by the Examiner, we uphold the examiner's rejection.

Claims 15-24 stand rejected under 35 U.S.C. § 103(a) as obvious over Virtanen. In response to this ground of rejection, Appellants rely on the same reasons presented in the discussion of the rejection of claims 9, 12, 25-31, 77, and 78. (Br. 10). Appellants have not presented any other specific arguments directed to the Examiner's obviousness rejection. In support of the stated rejection, the Examiner has presented specific statements regarding the knowledge of persons of ordinary skill in the art and combining this knowledge with the teachings of Virtanen (See Answer 6).

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Appellants have not refuted the Examiner's position. Thus, for the reasons presented above in our discussion of the rejection of claims 9, 12, 25-31, 77, and 78 and the reasons presented by the Examiner, we will uphold the rejection of claims 15-24 as well.

DECISION

The rejection of claims 9, 12, 25-31, 77, and 78 under 35 U.S.C. § 102(b) as being anticipated by Virtanen is affirmed.

The rejection of claims 15-24 under 35 U.S.C. § 103 as being obvious over Virtanen is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2004).

AFFIRMED

Sld/lis

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